

## REMARKS

Applicants acknowledge withdrawal of the finality of the previous Office Action in view of a new ground of rejection based on an additional reference.

Applicants note that the Office Action at page 2 points out the absence of data in the specification for combinations of imidacloprid and tebuconazole. As discussed below, Applicants now submit a Declaration under 37 C.F.R. 1.132 of Dr. Thomas Jaetsch to introduce relevant objective data obtained from the testing firm Materialprüfungsamt des Landes Brandenburg of Eberswalde, Germany.

### Rejection under 103

Claims 7, 9, 10, 14, and 19-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,742,060 ("Shiokawa et al"); *The Pesticide Manual*, 9th edition, ed. C.R. Worthing (Surrey, UK: British Crop Protection Council, 1991), pages 785 and 831-834 ("Worthing"); and U.S. Patent 4,731,385 ("Tsuboi et al"). Applicants respectfully traverse.

Addressing the references individually and in combination in the manner suggested by the Office Action, Applicants respectfully submit that their claimed invention is not rendered by the cited references, whether taken individually or collectively.

#### A. Shiokawa et al

Shiokawa et al discloses compounds having a formula that encompasses within its broad scope imidacloprid, the first component of the composition used in Applicants' claimed method. However, although Shiokawa et al does disclose imidacloprid – under the name 1-(2-chloro-5-pyridylmethyl)-2-(nitroimino)-imidazolidine (see column 12, lines 32-33) and by its formula in Example 11-ii (column 58, line 35) – this compound is disclosed as only one of a multitude of compounds in an extensive list at columns 11-12 and as only one of a vast array of compounds described in the Examples at columns 54 to 202.

As for mixtures containing imidacloprid, the only reference to any kind of additional active components is found in a very general statement at column 53, line 61, through column 54, line 2, which identifies such compounds only as "insecticides, baits, sterilizing agents, acaricides, nematicides, fungicides, growth-regulating substances or herbicides" and further defines insecticides only to the extent of identifying "phosphates, carbamates, carboxylates, chlorinated hydro-

carbons, phenylureas, substances produced by microorganisms." Nowhere does Shiokawa et al disclose tebuconazole by name or formula. Nowhere does Shiokawa et al even remotely suggest a combination of imidacloprid and tebuconazole, much less disclose a combination of imidacloprid and tebuconazole having the specific relative amounts specify by Applicants.

Applicants maintain that Shiokawa et al therefore provides no motivation to make and use the extremely narrowly defined combination specified by Applicants.

In contrast to the generalized teachings of Shiokawa et al, Applicants have obtained test data from Materialprüfungsamt des Landes Brandenburg – submitted in the form of a Declaration under 37 C.F.R. 1.132 of Dr. Thomas Jaetsch – showing that the combination of imidacloprid and tebuconazole gives rise to an unexpectedly dramatic enhancement in termiticidal activity when compared to the individual ingredients. More specifically, the mixture described in the Declaration would have been expected to kill only about a third of the treated termites but in fact killed all of the treated termites. Applicants submit that those skilled in the art would not have expected such dramatically enhanced activity.

Applicants therefore respectfully submit that their claims are not rendered obvious by Shiokawa et al.

B. Tsuboi et al

Tsuboi et al discloses nitromethylene compounds, not nitroimino compounds such as imidacloprid, and discloses combinations of such compounds with only a very limited group of second active ingredients, none of which is tebuconazole. E.g., column 1, line 67, through column 2, line 50. Nothing in Tsuboi et al could possibly lead those skilled in the art to Applicants' claimed invention.

Applicants therefore respectfully submit that their claims are not rendered obvious by Tsuboi et al.

C. Worthing

Worthing discloses tebuconazole among a vast array of known pesticides. Worthing also discloses formulations containing tebuconazole in combination with triadimefon (i.e., as "Foliair BT"), carbendazim (i.e., as "Horizon C"), and triadimenol (i.e., as "Matador"). However, all four of these compounds are fungicides. Worthing et al does not teach combinations of the fungicide tebuconazole with any other types

of active ingredients. Consequently, Worthing et al itself could not possibly lead those skilled in the art to combine tebuconazole with insecticides, much less with the specific compound imidacloprid at specific relative amounts.

In view of the vague reference to combinations in Shiokawa et al and the teaching of distinctly different combinations in Tsuboi et al and further in view of the enhanced activity found by Applicants (discussed above), Applicants maintain that their claims are not rendered obvious by Worthing, whether taken alone or with Shiokawa et al and Tsuboi et al.

#### **Obviousness-type Double Patenting**

Claims 7, 9, 10, 14, and 19-21 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-5 of U.S. Patent 5,972,971 ("Heuer et al"). Applicants respectfully traverse.

Heuer et al discloses wood preservative combinations containing hexaconazole and/or metconazole and further known compounds. E.g., column 1, lines 6-13. Neither hexaconazole nor metconazole is specified in Applicants' claims. Heuer et al throughout focuses on combinations containing hexaconazole and synergistically acting insecticides and optional fungicides (e.g., column 1, lines 34-55, as well as column 1, line 56, through column 6, line 6, and column 8, line 56, through column 9, line 26), although it must be noted that the only claims of Heuer et al specifically directed to compositions containing hexaconazole are dependent Claims 3 and 4. [Base Claim 1 of Heuer et al specifically names only metconazole and imidacloprid.] Although the general disclosure of Heuer et al does refer to tebuconazole (e.g., column 1, lines 65-67, and column 2, line 9) and to imidacloprid (e.g., column 2, lines 54-56, and column 3, line 30), these compounds are disclosed only as isolated members of a multitude of possible additional components that can be used in combination with hexaconazole. Of the claims, only Claim 3 is directed to compositions containing both tebuconazole and imidacloprid but even then only in a three-part composition that must always contain metconazole. Applicants submit that Heuer et al fails to suggest that a combination of imidacloprid and tebuconazole could provide the advantages the reference describes, much less suggest their use in specific ratios as claimed by Applicants.

Although Applicants maintain for the above reasons that their claims are patentably distinct from Heuer et al, Applicants have amended Claim 7 by replacing the bridging term "comprising" with the term "consisting essentially of" to exclude other active ingredients (without, of course, excluding pesticidally inactive components)

Applicants therefore respectfully submit that their claims are patentably distinct from the claims of Heuer et al and that thus the obviousness-type double patenting rejection be withdrawn.

In view of the preceding amendments and remarks, allowance of the claims is respectfully requested.

Respectfully submitted,

By Richard E. L. Henderson  
Richard E. L. Henderson  
Attorney for Applicant(s)  
Reg. No. 31,619

Bayer CropScience LP  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
PHONE: (412) 777-3809  
FACSIMILE PHONE NUMBER:  
412-777-3902  
s/rmc/relh/0430